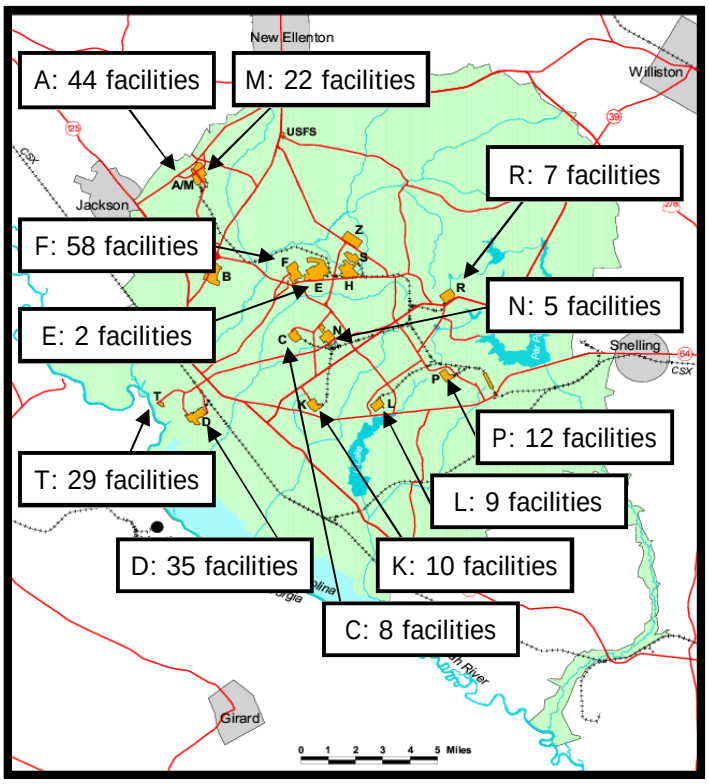
Decommissioning and Demolition (D&D)

D&D is a major emphasis at the Savannah River Site. Under the Department of Energy's accelerated cleanup initiative, reducing the site footprint is a high priority.

By the end of the current contract, which extends through 2006, 242 buildings are scheduled to be demolished. Across the site, there are about 6,000 buildings, encompassing about 10 million square feet. D&D work is expected to continue until about 2025.

D&D does not necessarily mean demolition. For some buildings, a more sensible, safe solution is entombment. The D&D process involves determining what the best end state is for any given facility, and achieving that end state in a safe, efficient manner.



M Area

Historically, M Area was the beginning of the SRS production process. Here, facilities produced materials for use in SRS reactors. The only radiological contamination in the area comes from the uranium that was used to make reactor fuels. Other contamination comes from solvents that were used in the process. All operations have been shut down since the late 1980s.

M Area, as it looked in 2002. The buildings of the Six Pack are labeled in white. The Six Pack is on track for completion in Spring 2004.

All 22 M Area buildings are scheduled for demolition by the end of the contract period, which is the end of 2006. The first major piece of that challenge was an area known as the "Six Pack," which involved six buildings totaling nearly 140,000 square feet. Those six buildings are slated to be completed by the spring of 2004, and that effort is ahead of schedule for successful completion.

T Area

T Area, also known as TNX, is a research and development area built near the Savannah River in 1950. It's the site's oldest operational area.

Historically, equipment was brought to SRS by barge. The equipment was inspected and tested in T Area, then sent on to other site areas for installation.

The TNX Area was an industrial facility where pilot--scale testing and chemical process evaluations

Facilities For D&D				
Area	Planned in Contract Period	Completed through 2003	Scheduled for D&D in 2004	Total projected by end of 2004
A	44	0	1	1
C	8	0	0	0
D	35	11	19	30
E	2	0	0	0
F	59	9	6	15
K	10	0	1	1
L	9	0	0	0
M	22	3	3	6
N	5	0	0	0
P	12	0	0	0
R	7	0	0	0
T	29	25	3	28
Total	244	48	33	81

were done to support fuel and target manufacturing, separations areas, chemical processes and the Defense Waste Processing Facility (DWPF). T Area is one of several heavy D&D emphasis areas because of its proximity to the Savannah River, near the edge of SRS. By the end of 2006, the schedule calls for demolition of 100,000 square feet of buildings.

Contamination in T Area comes from a small amount of uranyl nitrate, which poses no ultimate human health concerns; chlorinated volatile organic compounds, predominantly trichloroethylene (TCE), tetrachloroethylene (PCE), and carbon tetrachloride; uranium; and radium-226. SRS, the U.S. Environmental Protection Agency (USEPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) have agreed to cleanup paths to be complete by the end of 2006.

Closure of T Area is being addressed through an area concept, in which work is proceeding simultaneously on both demolition & removal and soil & groundwater remediation.

By the end of 2003, only four buildings remained to be demolished. Final soil & groundwater work is expected to begin in the fall of 2004. The entire area will be closed by the end of 2006.

T Area, as it appeared in November 2003. Since then, two more buildings have been demolished.

D Area

D Area is located only a few hundred yards from T Area. The function of D Area's facilities was to extract heavy water from the Savannah River for use in SRS reactors.

D&D work in D Area consists of 35 facilities, covering about 45,000 square feet, all to be demolished by 2006.

D Area, as it appeared in 2002. In 2003, 11 buildings were demolished.

The area also includes a power plant, which is operated by South Carolina Electric and Gas and will remain in service.

Contamination in the area includes tritium and mercury, as well as the results of operations of the coal-fired power plant, and non-hazardous materials such as metal, treated lumber, roofing materials, and asphalt paving materials.

By the end of 2003, 11 buildings in D Area had been demolished, in addition to the inter-area steam line that connected D and T areas.

F Area

F Area, located near the center of SRS, is also an area of D&D focus. By 2006, all operations in the area will be complete, which makes F Area a prime candidate for accelerated cleanup and elimination of risk.

412-D, most recently used as a fire training facility, was demolished beginning in 2003.

For nearly 50 years, F Canyon operations were a constant at SRS.

F Canyon is one of the site's two chemical separations areas. Historically, it extracted plutonium from spent nuclear fuel. FB Line refined the plutonium into buttons for the national defense. The facilities used a PUREX (plutonium and uranium extraction) process.

In 2003, all planned operations were completed in F Canyon, and PUREX operations were completed in FB Line. No other materials have been identified that require F Canyon's unique capabilities; H Canyon, SRS's other chemical separations facility, is capable of all further processing.

Since operations concluded, work has been ongoing to close obsolete systems that haven't been used in decades, empty and flush vessels, demolish excess facilities, and wind up scheduled operations.

FB Line is working to package and stabilize plutonium materials for long-term storage, under specific DOE standards. Those operations are expected to be complete in early 2005.

A major F Area undertaking is Project 247, in which a complex once used to produce materials for the

F Canyon completed planned operations in 2002 and is now undergoing deactivation. FB Line is scheduled to finish by 2006.

United States Navy is being deactivated and demolished. The project is divided into manageable "zones," which are being analyzed and cleaned out zone by zone. In 2003, three zones were completed, while only one was planned. Zone completion is expected to accelerate as work continues.

Project 247 is comprised of six buildings, encompassing more than 124,000 square feet. Here, uranium stock was converted into a form suitable for Naval fuel. The facility operated from 1985-1989 and was shut down because its services were no longer needed.

In the remainder of F Area, 53 facilities are scheduled to be demolished by the end of 2006. These include facilities used for administration, operations support, storage and any number of other support uses.

In 2003, nine of these were completed.

Contributed by Fran Poda, WSRC Public Affairs, Closure Business Unit Communications

Above, the main building of the 247-F complex. At left, intricate piping inside the facilities makes deactivation work challenging.

The 709-F fire station is one of nine support buildings in F Area that have been demolished.